

REMARKS

This is a full and timely response to the non-final Official Action mailed August 8, 2007. Reconsideration of the application in light of the above amendments and the following remarks is respectfully requested. A request for a one (1) month extension of time and the requisite fee accompany this paper.

Claim Status:

By the foregoing amendment, various claims have been amended. Claims 16-23, which were withdrawn previously in response to a previous Restriction Requirement, have been canceled herein without prejudice or disclaimer in order to expedite the issuance of the application. New claims 24-26 have been added. No new matter has been added. Thus, claims 1-15 and 24-26 are currently pending for the Examiner's consideration.

Prior Art:

Claims 1-4 and 7 were rejected as anticipated under 35 U.S.C. § 102(b) by U.S. Patent No. 6,205,360 to Carter et al. ("Carter"). For at least the following reasons, this rejection is traversed.

Claim 1, as amended herein, recites:

In a neurostimulator implant system having multiple electrode contacts through which electrical stimuli are applied to tissue within a cochlea of a patient, and wherein an evoked compound action potential (ECAP) occurs in the tissue when an electrical stimulus of sufficient intensity has been applied to the tissue, and wherein the presence or absence of an ECAP in response to an applied stimulus serves as a useful objective

indicator relative to the operation and functionality of the implant system, an improved method of eliciting an ECAP comprises:

implanting the multiple electrode contacts within the cochlea of the patient;
generating electrical stimuli with selectable degrees of intensity;
delivering the electrical stimuli to at least two of the multiple electrode contacts,
such that the at least two electrode contacts output an electrical current into the tissue of
the cochlea, the electrode contacts being arranged such that the electrical current output
by the at least two electrode contacts combines to provoke a single ECAP in the tissue of
the cochlea and, while delivering the electrical stimuli, gradually adjusting the intensity of
the electrical stimuli and monitoring for the occurrence of said single ECAP with another
separate electrode contact of the multiple electrode contacts;

noting the intensity of the applied electrical stimuli when the ECAP is first observed; and

using the intensity of the electrical stimuli applied to the at least two electrode contacts that caused the ECAP to first occur as a guide to setting the intensity of the electrical stimuli of the neurostimulator implant system during operation of the neurostimulator implant system.

(emphasis added).

It should be noted that claim 1, as highlighted above, recites implanting multiple electrode contacts *within the cochlea of a patient*, delivering electrical stimuli to at least two of the multiple electrode contacts to produce a single occurrence of an evoked compound action potential (ECAP), and monitoring for an occurrence of the ECAP *with another separate electrode contact within the multiple electrode contacts while the electrical stimuli are delivered.*

In contrast, Carter fails to teach or suggest delivering electrical stimuli to at least two intracochlear electrode contacts to produce a single occurrence of an evoked compound action potential (ECAP) and monitoring for an occurrence of the ECAP *with another separate intracochlear electrode contact while the electrical stimuli are delivered.*

Carter discloses a configuration wherein intracochlear electrodes are configured to produce an evoked action potential (EAP). (Carter, col. 5, lines 65-66). However, the EAP is not measured *while electrical stimuli are being delivered via the intracochlear electrodes.*

Rather, the intracochlear electrodes are configured to measure the EAP *during periods between stimuli*. (Carter, col. 5, line 65 through col. 6, lines 1-4).

Carter also discloses an *extracochlear* electrode configured to measure the stapedius muscle reflex in response to the electrical stimulation provided by the intracochlear electrodes. (Carter, col. 5, lines 55-57). This extracochlear electrode may also be used as a reference electrode in measuring the EAP. (Carter, col. 6, lines 10-14). However, the extracochlear electrode is not configured to monitor for the occurrence of the EAP while electrical stimuli are delivered via the electrodes, as required by claim 1. Nor is the extracochlear electrode located within the cochlea, as is also required by claim 1.

“A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. For at least these reasons, the rejection based on Carter of claim 1 and its dependent claims should be reconsidered and withdrawn.

Claim Rejections – 35 U.S.C. § 103:

Claims 5-6 and 8-15 were rejected as obvious under 35 U.S.C. § 103(a) in view of the combined teachings of Carter and U.S. Patent No. 6,175,767 to Doyle (“Doyle”). For at least the following reasons, this rejection is respectfully traversed.

Claims 5-6 and 8-9 depend from claim 1. Hence, the rejection of these claims under 35 U.S.C. § 103(a) is respectfully traversed for at least the same reasons given above with respect to claim 1.

Claim 10, as amended herein, recites:

In a neurostimulator implant system having multiple spaced-apart electrode contacts for delivering electrical stimuli for stimulating tissue within a cochlea of a patient, said neurostimulator implant system being configured to elicit an evoked compound action potential (ECAP) from the tissue of the patient when an electrical stimulus of sufficient intensity is applied to the tissue, said system comprising:

means for generating electrical stimuli with selectable degrees of intensity;

means for delivering the electrical stimuli to at least two of the multiple electrode contacts, such that the at least two electrode contacts output an electrical current into the tissue of the cochlea, while gradually adjusting the intensity of the electrical stimuli, the electrode contacts being arranged such that the electrical current output by the at least two electrode contacts combines to provoke a single ECAP in the tissue within the cochlea;

means for monitoring with another separate electrode contact of the multiple electrode contacts while the electrical stimuli are being delivered for the occurrence of said single ECAP, said separate electrode contact being located near the at least two multiple electrode contacts to which the electrical stimuli are delivered;

means for noting the intensity of the applied electrical stimuli when the ECAP is first observed; and

means for using the intensity of the electrical stimuli applied to the at least two electrode contacts that caused the ECAP to first occur as a guide to setting the intensity of the electrical stimuli of the neurostimulator implant system during operation of the neurostimulator implant system.

(emphasis added).

In contrast, neither Carter nor Doyle nor a combination thereof teaches or suggests a means for delivering electrical stimuli to at least two intracochlear electrode contacts to provoke a single ECAP and a means for monitoring with another separate intracochlear electrode contact *while the electrical stimuli are delivered* for the occurrence of the single ECAP. As described previously, Carter discloses intracochlear electrodes that are configured to measure EAP *during periods between stimuli*. Doyle discloses nothing about evoking or monitoring for ECAPs.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA

1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For at least this reason, the rejection of claim 10 and its respective dependent claims based on the combination of Carter and Doyle should be reconsidered and withdrawn.

Conclusion:

For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper that have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 50-3583 in the name of AdvantEdge Law Group, LLC. If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,

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